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ORNITHOLOGICAL NOTES FROM NORFOLK.
By Henry Stevenson, F.L.S.

In continuation of my notes for 1882, contributed to 'The Zoologist' last year (pp. 370—374, 411—416), I now forward those for 1883, to be followed shortly by those for 1884.

On January 3rd an immature Red-necked Grebe was shot near Yarmouth; and on the 5th a young Sclavonian Grebe at Potter Heigham. On the 3rd a Brent Goose was shot flying close to the houses next the beach at Yarmouth; and on the 4th a pair of Bean Geese at Winterton. On the 8th seven Wild Geese of some species were seen to cross Breydon, possibly Pink-footed. as one was shot at Fritton about the same time. On the 19th the Rev. E. T. Frere, of Burston, near Diss, informed me that three flocks of Wild Geese, the largest containing at least forty birds, passed over that parish, passing south-east. One flock came down low enough to be fired at, but without effect. An adult Bean Goose was also shot at Halvergate on the 19th; and two were sent up to Norwich from Yarmouth a few days later. A female Merlin was shot at Potter Heigham on the 5th; and on the 23rd another near Yarmouth. Three Shelducks were seen, and one shot, on Breydon, January 1st, and seven were seen on Breydon on the 10th; two immature were shot there on the 13th, and one on the 16th. Three Short-eared Owls were brought into Yarmouth on the 15th. Two Waxwings were killed at Gorleston on the 13th; two, also near Yarmouth, on the 19th, and one on the 20th; and one at Tivetshall on the 18th; probably part of the flock that reached us in December, 1882.

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Snow Buntings were abundant on the Denes at Yarmouth early in the month; some two dozen were netted on the 1st. A single Grey Wagtail was seen by Mr. G. Smith on the Caistor road, near Yarmouth, on the 14th. Several Stock Doves were brought into the Yarmouth market during this month. A male Shoveller in change of plumage was sent to Yarmouth in the first week of the month; two female Golden-eyes were shot on Breydon on the 10th; and many Common Scoters appeared off the North Beach, and in the Roads on the 21st; but fowl and waders were alike scarce in January. Three Shore Larks were shot at Yarmouth on the 18th, nine on the 26th, and others were said to have been seen in a field more inland. On the 27th a Norwich birdstuffer had, also, seven from Wells. Mr. George Smith, of Yarmouth, considers the Rock Pipit to be a regular, and in some seasons abundant, visitor in autumn and winter to the Yarmouth coast, having shot large numbers at different times on the banks of the Bure, and on Breydon Walls. In December, 1869, he shot eleven and a Meadow Pipit in one day. On Jan. 22nd Mr. J. H. Gurney, jun., counted thirteen female Goosanders upon the lake at Gunton, near Cromer. He also observed on the same day at Gunton some three hundred Black-headed Gulls; a rather early date for their appearance thus far inland.

On February 3rd a Waxwing was seen on a fence at Lakenham, near Norwich; and another was shot near Yarmouth on the 5th. On the former date I saw three Kingfishers which had been recently trapped by the legs, and a few inquiries in the neighbourhood whence they came elicited that many more of these beautiful birds had been similarly sacrificed in the interests of trout preserving. On the 5th I saw five Shore Larks, brought to Norwich from Cley; one old male had the vinous tints on the shoulders, a rich black gorget, and yellow cheeks. On the 7th of this month, as Mr. J. H. Gurney informs me, a female Wild Duck died at Northrepps Cottage which had been hatched and brought up there in 1854. It had been blind for several months, and for about eight years had been in complete drake's plumage, except a few brown feathers mingled with the green on the sides of the head and neck, and a few normal feathers on the flanks. Mr. J. H. Gurney, jun., saw a Lesser Spotted Woodpecker on the 14th which had been sent to a Norwich birdstuffer from Easton; and two more were shot near Norwich. Another was seen about the

same time by a reliable authority running up the trunk of a tree at Brooke, also near Norwich. On the 1st two Grey Geese were seen flying at Horsey, and five on Breydon. On the 24th a White-fronted Goose was seen on Heigham Sounds. An immature Sclavonian Grebe was shot at Flegg Burgh on the 9th, and another near Yarmouth on the 10th. This species was unusually numerous on our coast in the winter of 1882-83, but chiefly young birds. An immature Black-throated Diver was shot on the Yarmouth coast on the 14th. A great scarcity of both wildfowl and waders on Breydon was noticed this month. Two Shelducks, a few Wigeon, and one male Pintail Duck, on Breydon, on the 12th, and a few Grey Godwits are the only species worth notice, except the early appearance of Garganev at Potter Heigham on Feb. 24th. On the 19th an adult male Goosander was shot, one of sixteen which, varying in numbers, had frequented Gunton Lake and Antingham Ponds for some weeks, the flock comprising four adult males and twelve females. An immature Shag, probably storm-driven, was shot off the spire of Attleborough Church on the 22nd. On the 12th and 14th large flocks of small Gulls, no doubt of the Black-headed species, were observed at Northrepps, passing inland from the coast. One noticed on the 12th had a pure black head. An enormous flock of Lapwings, which extended a great distance when fairly on the wing, were seen to rise from the marshes by the river Yare, opposite Thorpe Asylum, on the The Rock Dove has never been included in the list of migrants to the Norfolk coast, from the obvious difficulty of deciding whether specimens obtained on the coast have not escaped from the trap-shooter, or strayed from the dovecote; but as Mr. Hancock includes it amongst the species nesting, to his knowledge, "occasionally in the cliffs of Marsden, and in other localities on the sea-coast, both in Northumberland and Durham, where the cliffs are high," there seems no reason why real wild Rock Doves from those counties, and still more northern localities, should not voluntarily visit Norfolk at times, and the species be added to our list, if they can be identified. I am led to make these remarks, since, in notes supplied to me from Yarmouth, Mr. G. Smith mentions examples of this species, one or two at a time (half a dozen or more in a bunch might suggest a shooting-match) as brought into Yarmouth from the neighbourhood, during January and February, 1883 (and on previous occasions) with Stock Doves. Such occurrences, especially in autumn and winter, should be carefully noted, with particulars as to locality where met with, and under what circumstances, as well as the state of the weather, and direction of the wind at the time.

The marvellous change in the weather, after so mild a winter, which extended from the 6th to the 10th of March, when gales, most disastrous on the coast from north and north-east, were accompanied, day after day, with heavy storms of snow and sleet till, on the 10th, the snow laid five or six inches deep on my grass plot, and icicles hung from the windows at mid-day, after severe frost at night-it was a curious sight to see my "Charity Board," thronged with feathered pensioners as in the sharpest winter. Tits, Chaffinches, Robins, and Hedgesparrows, with Thrushes, Blackbirds, and Starlings, all appeared, yet the latter, pinched as they were for food from this sudden deprivation of their diet, despite all cold and privation, sang merrily in the intervals of sunshine, and paid in melody for their "out-door relief." Yet, strange to say, by the evening of the 10th, the large amount of snow so gradually accumulated, had, to a great extent, disappeared through a rapid ground thaw, without rain and the temperature still very low. Another young Shag, but in its second year's plumage, now in my collection, was shot on the 1st of this month, on Yarmouth beach. A curious clustering of Wrens was observed at Northrepps about 5 p.m. on the 9th, when some six or eight, or more, were seen fluttering against the kitchen window of the keeper's cottage, situated amongst the plantations, and not far from the sea, and may have been a small migratory flock; they flew off into a laurel-bush, but disappeared later. A red-plumaged male Crossbill was shot in a plantation at Mousehold, near Norwich, on the 5th. Like the Shag before recorded, at Attleborough, a young Cormorant, green only on the back, was shot off the tower of Necton Church, far inland, on the 8th. The bird fell wounded, and severely scratched a man who seized it on the ground. Hundreds of the smaller Tringa appeared on Breydon in the first week of March, with some Ringed Plover, and during the severe weather a week later, more of these birds were seen than in all the winter months. Several Golden Plover, at this time, were well forward in summer plumage. Ruffs and Reeves appeared at Potter Heigham in

March, but are supposed not to have remained to breed. A Rough-legged Buzzard was shot at Potter Heigham on the 14th. Bramblings were plentiful about Yarmouth during the frosts, and a Grey Wagtail was shot at Yarmouth on the 10th. A large flock of Geese appeared on Breydon on the 14th, just after the storms of wind and snow; and three Grey-lag Geese on the 24th were killed out of a flock of seven. Mr. Edward Boult, of Potter Heigham, informed Mr. Southwell that a fine Fork-tailed Kite flew over him, about thirty yards high, on the 21st.

On April 4th a specimen of the so-called "Hairy Water-hen" was shot near Norwich. (See paper on, and list of similar specimens, by Mr. J. H. Gurney, jun., Trans. Norfolk and Norwich Nat. Soc. vol. iii. p. 581.) Single Woodcocks were seen at North-repps on the 10th and 15th; a Hobby at Northrepps on the 19th, and a pair of Shelducks shot on Breydon on the 12th. A Hoopoe was shot at Horstead on the 25th, and a pair of Twites were netted at Yarmouth on the 15th—rarely seen there in spring. An adult male Common Buzzard, just beginning to moult, was trapped at Northrepps on the 27th; and Mr. G. Smith informs me he saw an Osprey in the first week in April, flying over the Caister marshes from the sea. Lesser and Black Terns visited Breydon, April 30th.

A single Pied Flycatcher was seen at Northrepps on May 9th, on which day, as well as on the 12th, two Landrails were picked up dead under the telegraph-wires, one near Norwich, the other at Brandon, killed, most probably, on their migratory arrival, for on the 13th one was caught alive in the west porch of Cromer church, and about the same date Mr. J. H. Gurney, jun., saw one flying over a road at Northrepps. One appeared at Clippesby, near Yarmouth, on the 5th, and another at Winterton on the 9th, A Hoopoe was shot at Hanworth, near Cromer, on the 10th; and one at Lowestoft on April 25th. An adult Kentish Plover was shot on Breydon on the 3rd, and another on the 9th; and I saw a Black-tailed Godwit on the 12th, and one or two Bar-tailed, in change. Sanderling assuming summer plumage, 16th and 21st. Three fine Turnstones, and several good black-breasted Grey Plover, on the 21st. On the 20th I saw, on Cromer beach, a single Whimbrel, wonderfully tame, and two from Yarmouth on the 21st; one was shot at Yarmouth, April 12th-a very early date. A Land Dotterel was shot at Halvergate, on the 9th, in

immature plumage, and two adults seen. Six Knots, in good red plumage, were killed on Breydon on the 30th. Two Spoonbills were seen on Breydon on May 1st, but were not shot. Avocets also were seen on Breydon on the 9th, and one shot. The abundance of the Green Woodpecker, in certain favourable and wooded localities, is pretty well established by the fact, that a thoroughly reliable authority informs me, that in the middle of May, between Norwich and Thurning, where he went rookshooting, and returning by Haverland and Swannington, he saw not less than a score of these birds. During the summer of 1883 a pair of Wood Pigeons and a pair of Turtle Doves nested in Mr. C. Barnard's garden, next Park Lane, on the Unthank's Road. I have never known the Wood Pigeon nest so near this city before; but, so far back as 1850, I remember Turtle Doves nesting in the Wilderness garden on Bracondale. For the first time, a pair of Twites nested and hatched young in my aviary; and a young Sky Lark was hatched on the same day. These were not reared, however, from the difficulty of supplying any suitable food for the nestlings that would not be devoured by all the other birds. Young Greenfinches seem to thrive on the seed softened in the crops of the old birds. An Osprey was seen on Breydon on May 14th. Mr. Smith informs me that a female Golden Oriole, in greenish yellow plumage, was shot at Chedgrave on May 19th. An immature Marsh Harrier, with the yellow head, was killed at Burgh, by Yarmouth, on the 29th, and a young male Montagu's Harrier at Horsey, earlier in the month.

On June 1st an Osprey was seen on a willow at Downham, near Brandon, by Mr. F. Norgate; and an adult female Shorteared Owl was shot at Drayton on the 12th, but from its worn plumage and poor condition it had most likely been previously wounded, and unable to migrate. Several pairs of Garganey were known to have nested and had young broods in the Broad district of the Bure this month. Mr. B. C. Silcock informed me that, when sailing on Barton Broad on May 8th, he had the pleasure of watching a pair of White-winged Black Terns hovering over the water, and occasionally settling on a post. On the 10th a male of this species, no doubt one of the pair, was shot from a post on Hickling Broad. It was alone at the time. When fresh-killed the bill is said to have been brown with a tinge of lake-red at the gape of the mandibles; irides hair-brown; feet and legs bright

orange-red. On the 22nd a male Montagu's Harrier, one of a pair which had a nest this season in the marshes about Hickling, was shot and sent up to Norwich. It had still some brownish tints upon the back and shoulders, though otherwise in adult plumage, and some of the tail-feathers, unmoulted, were worn to mere stumps. The female was subsequently shot at, but missed, as she rose from the nest, and four eggs were taken, but not all The hen bird still frequented the neighbourat the same time. hood till the beginning of July. An eye-witness thus described to me the actions of these birds. The female sits as soon as the first egg is laid. The male attends upon her, and seeks for prey, with which he flies round her, giving a sharp cry, and drops it a little distance from the nest. The female then takes wing, picks up the prey from the ground, and, alighting with it still further from the nest, makes her meal, when she again settles on her eggs.

Two Grey Crows were seen at Scratby, near the shore, on July 15th. On Breydon, Common Sandpipers, Greenshanks, and Dunlins appeared on the 18th; six Whimbrel on the 22nd; a Little Stint on the 27th; a flock of twenty Whimbrel, two Pigmy Curlews, and Common Sandpiper on the 29th; and on the 31st six Curlews, Ring Plovers, and Whimbrel. On the 8th a young Sanderling: 9th, four immature Spotted Redshanks shot out of six, four Greenshanks shot out of six, and two Whimbrels; on the 11th, Knots, and a Wood Sandpiper, and Turnstone; 13th, a Green Sandpiper, and an immature Wood Sandpiper; on the 17th two Spotted Redshanks, dark birds, and one Reeve seen; one Common Sandpiper on the 21st. On the 10th and 11th a young Black Tern appeared on Breydon, and immature Common, Arctic and Lesser Terns. Several Garganey were shot at Ranworth on the 1st, and three Pochards were killed on Breydon out of seven on the 17th. Two adult and one young Great Crested Grebes on the 18th.

On the night of August 6th, at 10 o'clock, I heard Plover over the city, very dark at the time. At Cambridge, the night before, I heard the same notes over the town. On the 8th, about 10 p.m., after a heavy rain, with dark clouds about, heard mingled notes of birds passing over my garden, Plover and small Tringæ apparently amongst them, and one Curlew very noisy, going north-east to south-west. On August 24th, at 8 p.m., a single

Curlew passed in the same direction, calling incessantly. In Yarmouth market, on August 1st, Whimbrel and Curlew, an immature Ruff and two Reeves. On the 5th, from Breydon, two Oystercatchers, Knot, Pigmy Curlew, and a Turnstone. A male Crossbill, in red plumage, was shot at Braconash, near Norwich, on the 31st. Water Rails must have been exceptionally plentiful this year in Norfolk, as Mr. Edward Bidwell was informed by one dealer he had received over two hundred eggs from Yarmouth, and others had been supplied with them as well.

On September 4th a Manx Shearwater was shot on Breydon, and a Red-necked Phalarope on the banks of the Bure, near Yarmouth, on the 7th. An adult Little Gull was shot on Breydon on the 13th. An immature specimen of the red-spotted race of Blue-throated Warbler was shot on the 15th, on the south side of Breydon Wall, and on the previous day another was shot at Blakeney by Mr. F. D. Power. As will be seen by Mr. Gurney's paper (Trans. Norfolk and Norwich Nat. Soc. vol. iii. p. 597) on the occurrence of this species in some numbers this autumn upon the Cley and Blakeney sand-hills, between the 14th and 22nd of September, Mr. Power secured nine specimens, all in more or less immature dress, which, with many others seen, consorted with various other common summer migrants, amongst the Warblers. An immature Pied Flycatcher was shot on the Denes at Yarmouth on the 15th. Two Honey Buzzards were seen by Mr. Cremer during this month at Beeston, near Cromer. Strange as it may seem, that a species so common across the Channel should be unrecognised here, we certainly owe to Mr. H. M. Upcher's observation the addition of the White Wagtail to our Norfolk list. In his address as President of the Norfolk and Norwich Naturalists' Society, he stated that for three or four days in September, 1883, he watched a pair of these birds on his lawn at Feltwell. These two were adult, and he thinks some immature birds were with them. Fortunately, to make identification more sure, by comparison, several Pied Wagtails were in company with them at the time, so that the difference was most marked. Mr. Smith's notes from Breydon and Yarmouth beach comprise a Little Stint on the 8th, and Pigmy Curlew; another Little Stint on the 14th; and three next day, and one on the 16th, with two Greenshanks, a Sanderling, Ruff and Reeve, and a Land Dotterel (immature) and two red Knots; a Spotted Redshank on the 8th; one

Woodcock seen in a garden on the 18th; another Little Stint on the 24th; a Solitary Snipe with four Jack Snipes was shot on the 29th at Potter Heigham. I am informed that at least fifty Kingfishers were shot this autumn in the Yarmouth district, and though many of these were no doubt autumnal visitants to our coast, some would also be home-bred, and such a wholesale destruction is much to be regretted, if it cannot be prevented. An immature Eared Grebe was shot on Breydon on the 15th; and a male and female at Somerton about the same date. A Merlin, taken on a vessel at sea, was brought into Yarmouth on September 24th. Two Goosanders, early arrivals, were seen on Breydon on the 25th. In 'The Zoologist' for 1884 (p. 13), Mr. Gunn mentions four or five young Cormorants seen in Yarmouth Roads early in September, and he saw one on the 11th about one hundred yards off the beach.

On Breydon and in its vicinity two or three Solitary Snipe were shot early in October, and a Purple Sandpiper on the 5th; about forty Golden Plover seen on the 9th; on the 12th a Woodcock brought into Yarmouth alive, taken on board a fishing-boat, another was shot on the shore on the 16th, and on the 22nd one created great excitement in Yarmouth market-place as it flitted over the stalls; a Spotted Redshank shot on Breydon, on the 22nd, ten were shot the same day, mostly on the north Denes, a numerous flight of these birds appeared on the North Norfolk coast on the 31st; four Spotted Redshanks out of a flock of seven were shot in Terrington marsh, near Lynn, on the 27th, by Mr. W. D. Ward. A young specimen of the Little Gull was shot at Hickling or Potter Heigham on October 7th, and a Great Grey Shrike was killed at Horsey on the 9th. A Stormy Petrel was brought into Yarmouth, alive, on the 12th, caught on a vessel off the coast. A dark immature Richardson's Skua was killed near Yarmouth about the 9th; and a good adult Red-throated Diver shot on Breydon on the 16th. A Rough-legged Buzzard was shot on Yarmouth Denes on the 20th; and another at St. Olaves, in the adjoining county, on the 13th. A male Shore Lark was shot at Winterton on the 4th; and others were seen at Yarmouth on the 24th and 28th: of four shot on the latter date three were immature males. A pied variety of the Ring Ouzel was obtained near Yarmouth on the 24th. An adult Red-necked Grebe, in change of plumage, was shot on Breydon on the 24th; and a young Red-necked Phalarope on the beach at Yarmouth the same day. About the 8th of this month the Yarmouth birdcatchers were netting Siskins, Linnets, and Goldfinches; on the 13th hundreds of Sky Larks and numbers of Greenfinches made their appearance. Grey Crows and some Jackdaws appeared on the coast at Northrepps on the 6th and 8th; and Grey Crows in large numbers, and some Black Crows, appeared at Yarmouth on the 14th. the 20th, at the same place, Missel Thrushes arrived in considerable flocks. At Cromer lighthouse on the 13th, between 3 and 5 a.m., seven Sky Larks and one Starling struck the light; and at Happisburgh, between 4 and twenty minutes past 5 a.m., seventy-two Larks, eight Starlings, and a male and female Brambling struck the lighthouse—the first big flight of the season. In 'The Field,' about the 11th, a passenger by a steamer from Aberdeen to London, reported the appearance on board of six Chaffinches, a Rook, and a Woodcock when off Cromer. The wings of the following species, killed at Lynn Well lightship were sent to Mr. J. H. Gurney, jun., on the 17th:-Kestrel, Snow Bunting, Chaffinch, Robin (two), Wren, Goldcrest. presence of the Common Wren amongst these migrants is very interesting.

Two Pink-footed Geese were shot in South Breydon marshes on November 1st, and one Grey-lag, shot out of three seen on Brevdon on the 4th; another was shot in the neighbourhood on the 17th. A Spotted Rail was shot near Yarmouth on the 6th, and one or two in the neighbourhood in the previous month. On the 8th a Grey Shrike was killed near Yarmouth. An adult Red-throated Diver was shot on Scratby beach on the 10th. Two Shore Larks were shot on Breydon Wall on the 13th; and one shot, and three more seen, on Yarmouth Denes on the 22nd. Mr. Smith thinks that this species, and Snow Buntings also, passed further inland this season, instead of frequenting the Denes and shore line. A solitary Sclavonian Grebe was shot on Breydon on the 14th. Mr. Smith informs me that he saw a Ring Dove on the 22nd, that had just died, which had been taken and brought up as a nestling, and had lived in a cage for nineteen years. The only fowl of any note on Breydon in November were a few Scaups, Pochard (immature), and a male Shoveller in change of plumage; and five Golden-eyes at Hickling. Mr. E. Boult informed Mr. Southwell that Scaups appeared with Pochards and

Wigeon on the Broad waters at Potter Heigham early in October. A Gadwall and some Pintails were taken in Westwick decoy about the 30th. A Great Spotted Woodpecker was shot at Somerton on the 10th. Hundreds of Golden Plover and Lapwings were seen in the South Breydon marshes on Nov. 1st, when a flight of Woodcocks occurred, and several were shot on the Denes, and another flight seems to have come about the 24th; a single bird was found dead at Northrepps on the 26th, having flown against a building in the night. Several Short-eared Owls appeared in Yarmouth market during this month; Snipe not plentiful. A few Dunlins on Breydon on the 12th, and a Purple Sandpiper was shot there on the 13th. A Water Rail was taken alive on board a boat off Yarmouth on the 12th. On the 24th a flock of about fifty Golden Plover passed inland at Northrepps, going west. Hooded and Carrion Crows were still arriving at Yarmouth between Nov. 1st and 6th. A Grey Crow shot on the 25th had the mandibles twisted like a Crossbill. Two Swallows were seen at Northrepps as late as the 16th. A good many Cole Tits were seen in plantations on the Caistor road, near Yarmouth, on the 4th, and both these and Long-tailed Tits appeared in the same locality in the previous month. A good number of Rock Pipits arrived about the 22nd on the walls of Breydon and the Denes. The following species were also identified by Mr. J. H. Gurney, jun., by wings sent of specimens killed at Lynn Well lightship, between the 4th and 9th of this month:-Thrushes (twelve), Redwing, Chaffinches (ten), Blackbird, Snow Bunting (four), Wheatear, Brambling, Tree Sparrow, Fieldfares (four), Knot Sandpipers (four), Storm Petrels (six), Jack Snipe, Dunlin Sandpipers (three).

The chief ornithological event of the winter was the appearance of some half-dozen, probably more, Eider Ducks, all, so far as I could learn, either adult females or immature birds. It was not till the 2nd of December that I learnt from Mr. G. Smith, of Yarmouth, a female Eider had been seen, but not shot, on Flegg Burgh Broad on Nov. 22nd, and this probably marks the period of arrival of these birds on our coast. A part, evidently, when shot at and dispersed on Breydon, passed inland, and frequented fresh waters for a time. This seems apparent from the fact that an adult female, said to have been seen with others, in the same locality, was killed with a stone on December 11th, upon a small

stream near Hellesdon Mills, near Norwich, and, like the one to be next mentioned, was said to have been strangely tame. bird was presented by Mr. J. H. Walter to the Norwich Museum. On the 12th Mr. G. Smith informed me that a supposed immature female, seen in company with six more, was shot on Breydon, and that this bird was so tame that it came to the boat-yards, where boys threw stones at it. On the 14th, another, described as a young male, was also killed on Breydon, and the plumage of both was described as very dark. It is quite probable that four large diving ducks seen by Mr. J. Barwell on Bridge Broad, Wroxham, ten days later, may have been the remnant of this flock, judging from his account of their size, form, and actions. An adult female Peregrine was shot at Haverland on the 10th. Woodcocks were decidedly numerous during the autumn and winter, as shown in the Yarmouth district, and bags made at Westwick and Sheringham; but the noted Swanton Wood did not make the return expected this year. A Bittern was shot on Barton Broad on the 23rd. At Yarmouth, on the 8th, Knots and Sanderlings were shot on the beach. A little frost and snow in the first and second weeks of December brought a good sprinkling of fowl to Yarmouth, mostly Duck and Mallard, Wigeon and Teal; and on the 12th three Pintails, two males and one female, on Breydon. Some notice was taken in the local papers, both at the end of November and during December, of flocks of Geese, on one occasion numbering over eighty birds, passing over the city at Mr. Gunn, who recorded their occurrence in 'The Zoologist' for 1885 (p. 57), was no doubt correct in supposing them to be the half-wild Canada Geese, bred in large numbers on various estates in this county, and which, in sharp weather, being unpinioned, take long flights from their home quarters.

NOTES ON THE VERTEBRATE ANIMALS OF LEICESTERSHIRE.

By Montagu Browne, F. Z. S. (Continued from p. 253).

Class Aves .- Order Passeres .- Family Turdide.

Turdus viscivorus, Linn. Missel Thrush ("Thrice-cock," Thristle-cock.").—Resident, commonly distributed, and breeding

even in gardens close to or within the town of Leicester. A nest, which I found in May, 1884, built in the fork of a spruce-fir close to the high road in the village of Aylestone, contained birds fully fledged. Both parents came from a distance on hearing the cries of the young as they endeavoured to escape, and for several minutes dashed around our heads and settled at our feet, trying to entice the young birds to a place of security. Missel Thrush is semi-gregarious in winter, feeding with others of the Turdidæ, though, as Mr. Ingram writes, this bird is "not gregarious like Fieldfares, but consorting in families." Harley says it commences its song towards the early part of December, yet I think it is most frequently heard towards the end of January and in February. This year I heard it singing early in the morning of February 3rd. In 1883 Macaulay reported it singing on Feb. 19th. Mr. H. S. Davenport gave me the following interesting note:-"Two Missel Thrushes-call them A and B-built nests at the same time in low trees within six yards of each other, opposite the hall-door at Ashlands, in May, 1883, and successfully reared their broods. A few days later both birds returned to B's nest, in which they deposited nine eggs (I took four away), and on these A commenced to sit; meanwhile B constructed another nest a short distance off, and both birds reared their second broods in safety. In the first instance the eggs in both nests presented distinctive features." The following year he wrote on March 25th: "Yesterday morning I found a Missel Thrush's nest close to the same spot, containing seven eggs, all fresh, the old bird on the nest. Of the seven, four were of one size and shape, and three another, and both lots corresponded exactly with the eggs taken last year. Do you suppose that there is one cock and two hens? I compared the eggs found yesterday with those (one of each) I took last year, and they are fac-similes."

Turdus musicus, Linn. Song Thrush.—Resident and common; breeding in gardens on the verge of the town. During the mild winter of 1884 I heard a Thrush singing at Aylestone on Jan. 2nd; Mr. Macaulay heard one in full song at Kibworth on Jan. 5th, 1882, and also on Christmas-day, 1883; he also heard Thrushes singing during the night of Feb. 27th, 1885,—a circumstance which I myself remarked on February 20th, 1867. Mr. Macaulay has found a nest containing the abnormal number of seven eggs.

Mr. Davenport found young birds in 1883 as early as April 8th. The earliest egg as yet noted was laid on March 18th, 1885. The most singular site for a nest which I have seen was one selected in April, 1885, in the garden of Mr. William Squires, on the Aylestone road. This nest was built on an ornamental wooden, semicircular projection, like a little bracket, above the door of the "summer-house," about six feet from the ground, perfectly exposed, and liable to be disturbed by anyone passing in or out; while not two feet distant was a growth of ivy covering the roof and sides of the house, in which the nest might have been well concealed. Notwithstanding the exposed situation selected the bird successfully brought off her brood. Varieties of this species occasionally occur, and Harley has recorded three albino birds taken out of a nest in the lordship of Aylestone.

Turdus iliacus, Linn. Redwing.—A winter migrant, generally distributed in woodland districts throughout Leicestershire, arriving about the middle of October, and remaining sometimes until late in the spring. Harley observed it "even after the month of June had come in," which suggests the possibility of the Redwing sometimes remaining to breed with us; and I find a note by Mr. J. H. Ellis (Zool. 1864, p. 9242), which, assuming no mistake to have been made, would settle the matter. He writes: -"Mr. H. R. Hurst, of The Oaks, near Kirby Muxloe, states that a Redwing built in his grounds this spring. He is a keen observer, and not likely to be mistaken. One bird only was hatched, and he has kindly sent me one of the addled eggs. It is a trifle smaller than a Thrush's egg, more rounded at the ends; the ground colour is a greenish white, spotted with reddish brown of various shades. I am not competent to form an opinion from the egg, but it certainly is none of our resident Thrushes." This circumstance is also noticed in Mr. Harting's edition of White's 'Selborne,' p. 159, note. In some years the Redwing appears in greater abundance than in others, and I imagine it to be more plentiful in Leicestershire than the Fieldfare. On Dec. 26th, 1884, I was shooting at Knighton, and towards evening was in a "spinney," when a vast number of Redwings flew in to seek shelter for the night. Flock after flock arrived, uttering their harsh cries, deepening to notes of alarm as they observed me. I shot several to be sure of the species, and this without frightening others, which kept on flying into the thicket until

quite dark. Although some of them alighted in the tall ivy-clad trees overhead, they flew down to the ground at the first opportunity, where they rested in thick bushes close to the ground. I had previously, in the daytime, observed the ground covered thickly under these bushes with their droppings, and conclude that (as White and Harley state of the Fieldfare) this species roosts close to the ground.

Turdus pilaris, Linn. Fieldfare (local name, "Felt," "Feltyfare," or "Pigeon-Felt.").-A winter migrant, generally distributed in Leicestershire, appearing about the middle of October, and usually leaving at the end of March or beginning of April, or even later should the weather be severe. Mr. Macaulay has observed it as late as May 10th, and Mr. H. S. Davenport once saw five near Skeffington Vale on May 12th, 1879. Contrary to the wellknown habits of its congeners, as remarked by Harley, quoting White, it roosts at night-time on the ground in such places as holms and scaurs, where tall grass and rushes prevail. Although there is no evidence of this bird nesting in the county, Mr. J. H. Ellis, writing in 'The Zoologist' for 1864 (p. 9248), states that "On the 29th of July, 1864, a Fieldfare, Turdus pilaris, was shot in the garden of Mr. H. R. Hurst, The Oaks, near Kirby Muxloe, Leicestershire. The bird had been about the garden during the summer.".

distributed, breeding even in gardens close to or within the town of Leicester. In 1884 I heard Blackbirds singing, together with Thrushes, on Jan. 2nd. Harley occasionally met with its nest on the ground, and once saw a nest containing five eggs which had been found on the crest and within the flower-stalks of a turnip, several yards from any fence or hedge. Mr. H. S. Davenport reports that in May, 1879, a Blackbird built its nest in some thick ivy on the wall adjoining the stable-yard at Skeffington Rectory, in which she laid six eggs, all of which were hatched, and the young fled. Shortly afterwards five more eggs were deposited in the same nest, and were also successfully hatched off. In July, 1885, a cock and hen Blackbird continued to feed their young in a cage after their removal in a nest from one side of a summer-house to the other. Two pied yarieties are in the Leicester Museum.

Turdus torquatus, Linn. Ring Ouzel.—Rarely observed, but is said to breed in the county. In Potter's 'History of

Charnwood Forest,' Mr. Babington says:- "On Strawberry Hill, near Sharpley, in the summer of 1840, I observed three or four flying about among the rocks, and had a specimen brought me from the same place a few years previously." Harley states that this bird is sparingly met with in the Forest of Charnwood, and affects the uncultivated waste lands, intersected by rough stone walls, lying over against the village of Whitwick, where it breeds. "As autumn draws on, the old birds with their young leave the bleak hills, and retire to the enclosures abutting thereon, where they feed on the fruit of the wild brier, elder, &c., shortly afterwards disappearing for the winter." Mr. Macaulay has recorded one shot in May, 1871, in Gumley Wood, and now in the collection of the Rev. A. Matthews, and another at Noseley, 1880. I saw one which was shot between Syston and Queniborough towards the end of 1882, and Mr. H. S. Davenport shot a fine male at Cold Overton on October 2nd, 1884.

Wheatear, "Fallow-chat." — A Saxicola enanthe, Naum. summer migrant, generally distributed, and breeding. I have seen the bird at Aylestone more than once, and Mr. A. W. Evans shot two in autumnal plumage in the Abbey meadow in the Harley remarks that "the first to arrive are autumn of 1883. males, which haunt the plough-lands for a few days, and then apparently betake themselves to the desolate hills of Bradgate and the rocky summits of Bardon and Markfield. are to be found the summer through." He adds:-"We once met with the nest in the vicinity of Bardon. In turning aside suddenly to examine the fronds of some plants that were growing in great luxuriance on a ditch-bank, surmounted by an irregular stone fence, composed of boulders and large blocks of loose granite, or porphyry, we disturbed a female Wheatear, whose nest we found had been snugly built between the chinks of two large stones, guarded on all sides by large masses of the same The structure of the nest was bulky and loosely materials. made. It was mainly composed of fibrous twigs, green moss, tender leaves of dry grass, and lined with hair, wool, and some small feathers, and contained six eggs." The female Wheatear endeavoured, by feigning lameness, to draw his attention from the nest. Mr. H. S. Davenport writes :- "In May, 1875, I found a Wheatear's nest with five eggs down a drain-pipe on the turnpike road at Skeffington."

Pratincola rubetra, Gray. Whinchat (locally "Utick," as also the following species, from its sharp note).—A summer migrant, generally distributed, and common. Mr. Davenport reports the first egg of this species in 1883 on May 31st, but in 1884 on April 30th. Respecting this unusual date for the nesting of a bird, which is always a late-comer, I must say that, despite Macaulay's contention as to its being a proof of the wintering of the Whinchat in Leicestershire, I consider that Mr. Davenport must have mistaken it for the Stonechat, upon the nesting of which he is silent.

Pratincola rubicola, Gray. Stonechat (local name, "Utick.").—Resident and generally distributed, but I consider it a much rarer bird than the Whinchat; nor have I any record of its nesting save that furnished by Harley in his MS. list of Leicestershire birds, so often quoted.

Ruticilla phænicurus, Macg. Redstart, "Firetail."—A summer migrant, generally distributed, but not common, breeding. Harley notes the arrival of the males several days before the females, and adds:—"With us it affects pollard willows and ashes, nesting on the crown of such unsightly trees. It will, moreover, take possession of the deserted hole of the Woodpecker and Nuthatch, and such crevices in our forest trees as are produced by natural decay and wet." Browne, Davenport, Ingram, and Macaulay have found the nests of this species built in other situations than those noted by Harley.

Erithacus rubecula, Gray. Redbreast.—Resident, generally distributed, and breeding in all sorts of situations, usually very early, and, being double or even treble-brooded, very late. The end of February and March, 1883, was very severe, during which time a Robin was sitting on four eggs in ivy growing beside the greenhouse in the garden of Mr. T. Lawrence, of Stoneygate, Leicester. A nest containing two fresh eggs was sent to the Museum on Oct. 22nd, 1884, taken from a shed in the grounds of Messrs. Harrison & Sons at Westcotes. In May, 1883, a nest containing three young birds (now in the Leicester Museum) was built in a broken bottle, surrounded with other bottles, in a toolhouse in Mr. C. S. Robinson's garden at Stoneygate. Another one, also in the Museum, containing four young ones and the parents, was found, on the 4th April, 1884, in the bank of a small ditch by the side of the road at Aylestone, only a few

yards from the tram terminus. Another nest and four eggs, built in a flower-pot lying on the ground, was presented by the owner, Mr. Boyes, a nurseryman at Aylestone, in May, 1885. The 'Leicester Daily Post' for May 28th, 1885, states that the occupier of one of the Sparkenhoe allotment gardens discovered a Robin's nest and brood in a disused meat-tin, which, having been emptied of its original contents, he had used for tar, and had thrown away. The eggs of the Robin vary considerably both in shape and tone, Mr. Davenport reporting a nest of six eggs, pure white, found near Ashlands in May, 1880.

Daulias luscinia, Newton. Nightingale.—A summer migrant, sparingly distributed, and occasionally breeding. The latest date on which it was heard by Mr. Macaulay, who finds it every year in the vicinity of Kibworth (where it appears to be more common than in any other part of the county), was on June 24th, Mr. Babington has noted its occurrence about Leicester, Rothley, Wanlip, &c. Harley found it at Whetstone Gorse, Buddon Wood, The Outwoods Loughborough, Stoneygate plantations, Birstal plantations, covers, and thick belts of plantations in other parts of the county. Mr. Ingram writes me that it arrives at Belvoir "in April, and frequents Barkstone, the Kennel Woods, and Calcraft's Bushes, breeding in each of these woods." Although I have been frequently told of its occurrence around Leicester, I never heard it until this year (1885), on the 9th of May, in a spinney by the canal-side at Wistow. I have reason to believe that it nested this year at "Leicester Frith," the seat of Mr. T. Swift Taylor.

(To be continued.)

THE MOLLUSCA OF THE COUNTIES OF KENT, SURREY AND MIDDLESEX.

By T. D. A. COCKERELL. (Continued from p. 303.)

Hyalina cellaria.—Minster; Orpington; Ealing; Bedford Park; Kenley. Var., opaque white, Minster and Kenley. Var., greenish white and semitransparent, near Wrotham; Folkestone Warren (A. H. Shepherd); [Maidenhead].

Var. compacta.—Surrey (M'Kean).

H. alliaria.—Chislehurst; Barnes Common; banks of River Lea (Loydell and Rowe).

Var. viridula.—Kent (Smith).

H. glabra.—W. Drayton (R. W. Cheadle); Acton (L. M. C.); Hanwell (S. C. C.); Chiswick (F. Fenn); Reigate; Leatherhead (J. H. Ponsonby); Hendon (A. H. Shepherd); Orpington; Canterbury (Miss L. Fenn). This species is commonest in Surrey and West Kent. This and the last are without doubt identical with Jeffrey's species bearing the same names, but there seems to be some difference of opinion among continental authors as to the naming of these forms.

H. nitidula.—Generally common. Minster; Canterbury (Miss L. Fenn); Orpington; Haslemere; Bedford Park; Wembly; Perivale.

Var. nitens.—West Northdown, Thanet; Boxhill (Loydell and Rowe); banks of Thames near London (Harting).

Var. Helmii.—Sevenoaks (Smith); Bickley; Orpington, under blocks of chalk in company with H. rotundata var. alba; Godstone quarries (K. M'Kean).

H. pura.—Shooter's Hill and Eltham (Loydell and Rowe); Erith (Leslie); near Oxted.

Var. margaritacea.—Shooter's Hill (Loydell and Rowe); Farnborough; Chislehurst; Orpington; near Dorking; Leatherhead (J. H. Ponsonby).

H. radiatula. - Chislehurst; Orpington; Barnes; Bedford Park, &c.

Var. viridescenti-alba. — One at Chislehurst (D. B. C.); Mill Hill Park (F. Fenn).

H. nitida. - Minster; St. Mary Cray; Barnes; Perivale.

Var. albida.—Richmond, in rejectamenta of River Thames (Choules).

H. excavata.—Recorded for West Kent, Surrey, West Sussex, and Hants. Near Tunbridge Wells (Jeffreys); near Copthorne Common, Surrey (E. Saunders).

H. crystallina. - Orpington; Haslemere; Bedford Park, &c.

H. fulva.—Chislehurst; St. Mary's Cray (L. M. C.); Haslemere; Barnes. "Very common in beech copses, far under dead leaves, about Woldingham, and especially Gatton" (K. M'Kean).

[Var. Mortoni. — N. Hants (Jeffreys); Maidenhead (L. E. Adams).]

Helix aculeata.—Warlingham; Sevenoaks; Gatton, Croham Hurst, Woodmansterne, &c. (K. M'Kean); Orpington, on a bank with H. pygmæa; Erith, with Hyalina fulva in oak woods (H. Leslie); Twickenham (S. C. C.); Fulham (Harting).

H. pomatia.—East Kent (W. D. Roebuck); Eynsford, Warlingham, &c., abundant on the chalk.

Var. albida. — Near Reigate (Brewer); Dorking (J. W. Williams).

H. aspersa. - Very abundant in all three counties.

Var. exalbida.—Warlingham, Dartford, Chislehurst (L. M. C.); Dorking (C. Ashford); near Faversham (Fairbrass); Kemsing (A. H. Shepherd); Folkestone (Fitzgerald); Orpington (L. M. C.).

Var. zonata.—Folkestone (C. Ashford).

[Var. virescens.—Cowfold, Sussex (J. W. Taylor from description by J. E. Harting).

Var. unicolor.—Horndean, Hants (Madison).]

Var. grisea.—Folkestone (Fitzgerald); Dorking (Ashford).

Var. albescens. - Minster (S. C. C.); Godstone.

Var. albofasciata. — Godalming (H. W. Kidd). [Carisbrook Castle, Isle of Wight (Ashford).]

Monst. scalariforme, Chislehurst (I. M. C.). Monst. sinistrorsum, Epsom (Daniel); Hanover Villas, Notting Hill (E. A. Smith); Dartford (Latham).

H. nemoralis.—Abundant in Kent, but less common in Surrey. Generally distributed in Middlesex.

Var. castanea.—Minster, St. Mary Cray, Perivale.

Var. studeria.—Crayford.

Var. olivacea.—Near Faversham (Miss Fairbrass).

Var. albescens.—Wrotham.

Var. rubella 00000.—Near Canterbury (Miss L. Fenn); Chislehurst; Orpington.

Var. libellula 00000.—Orpington, Minster.

Vars. albolabiata and hyalozonata.—Folkestone (Fitzgerald).

H. hortensis.—Generally abundant. It does not seem to occur in Thanet, however, the only evidence of its existence there being a few dead shells found on the shore a little to the west of Ramsgate by my brother (S. C. C.), but these had probably been washed from elsewhere.

Var. lilacina.—Chislehurst; near Faversham (Miss Fairbrass); near Putney (S. C. C.); Gunnersbury.

Var. albina.—Acton; near Putney (F. Fenn); Sidcup.

Var. lutea 00000.—Chislehurst, Hampstead (C. Fryer), Acton Green, Dorking, &c.

Var. incarnata. - Acton Green; Dorking; near Chislehurst, &c.

Var. hybrida, Jeff. (= roseolabiata).—Kent and Surrey, but not so well marked as some I have seen from other districts (e. g., Bristol, Miss Hele). Faversham (Taylor).

Var. fuscolabiata.—Folkestone (Mrs. Fitzgerald); Canterbury (Miss L. Fenn). The specimens which I have seen from both these localities have been pink and bandless.

Var. arenicola.—Canterbury (L. Fenn); Bickley; Warlingham, one having a formula (123)(45); and other localities.

Var. minor.—Bickley (L. M. C.).

[Var. castanea.—Preston Candover (H. P. Fitzgerald).]

H. arbustorum. — Local. West Drayton (R. W. Cheadle), Shiere, Charlton (Harting), Deal, Battersea, Fulham, and Hammersmith (Harting).

Var. alpestris. - One at St. Mary Cray (S. C. C.).

Var. marmorata.—Deal, amongst nettles.

Var. flavescens. - Folkestone (Mrs. Fitzgerald); St. Mary Cray.

Var. cincta.—Folkestone (Mrs. Fitzgerald).

H. cantiana.—Very abundant, Ramsgate; Upton; near Sandwich; Canterbury (L. Fenn); Orpington, Shiere, Acton Green, Ealing, &c.

Var. rubescens.—Near Faversham (Fairbrass); near Chisle-hurst.

Var. galloprovincialis.—Minster and Sarre.

Var. minor, - Farnborough.

Var. albida. — Near Faversham (Fairbrass); Chislehurst, amongst *Tussilago*, with the type (L. M. C.); Orpington, Epsom Downs (Loydell and Rowe), Hampton Court.

(H. limbata.— Hampstead, G. B. Sowerby. Probably introduced).

H. cartusiana.—Sandwich; Deal (Leslie); Folkestone, "The largest ones were highest up the hill, on bents of long grass during the hottest weather. Not one found on a windy day (wind S.W.), nor could I find them at roots of grass. Nearly all full grown at the end of August" (C. Ashford). This species is also said to have been found on Banstead Downs, in Surrey (Cooper).

NOTES AND QUERIES.

Death of Professor Milne-Edwards.-Since the appearance of our last number our readers will have become aware of the death of Prof. Henri Milne-Edwards, which took place in Paris on the 29th July last. announcement, we feel sure, will have been received with a universal expression of regret amongst naturalists to whom he was known, either personally or through the medium of the many valuable works published by him during a long lifetime. Of English parentage, he was born in Bruges in 1800, and at an early age repaired to Paris, his adopted home, to study for the medical profession. This was in the days of Lamarck, Latreille, Cuvier, Dumeril, and Audouin, all famous naturalists, with whom it was his privilege to become acquainted, and through whose friendship and assistance he may be said to have risen to fame. His energy and talents were soon recognised, and in 1838 he was selected to succeed F. Cuvier in the Académie des Sciences. In 1841 he was appointed to the Professorship of Natural History in the Collège Royale de Henri Quatre, and after wards to the chair of Zoology and Comparative Physiology at the Faculty From 1834, in collaboration with his friend Audouin, he acted as joint editor of the zoological portion of that useful periodical the 'Annales des Sciences Naturelles,' to which they both contributed many valuable memoirs. On the death of Audouin, Milne-Edwards was elected to the Professorship of Entomology at the Jardin des Plantes, where some years later, namely in 1862, he succeeded Isidore Geoffroy St. Hilaire as Professor of Zoology. Of his numerous published works it is difficult to speak too highly and yet briefly. To the majority of students his name will be, of course, associated with his popular 'Elémens de Zoologie,' first published in 1834, and afterwards (in 1851) reissued as a 'Cours elémentaire de Zoologie,' which not only had a large circulation in French, but was translated into several other languages. more important works may be mentioned his 'Histoire Naturelle des Crustacés' (1834-40); his 'Histoire Naturelle des Corallières' (1857-60); and his 'Leçons sur la Physiologie et l'Anatomie Comparée de l'Homme et des Animaux' (1857-81)—any one of which works would have sufficed to make the reputation of its author. Those who, like the writer of these lines, have enjoyed the privilege of visiting him in Paris, and have sought his aid while studying at the Museum of the Jardin des Plantes, will ever remember with gratitude how freely that aid was extended, how courteous a reception was given! He will be much missed at the Museum, but we rejoice to think that he has left behind him so worthy a successor as his son, M. Alphonse Milne-Edwards, to fill the chair of Zoology.

The British Association. - The Fifty-fifth Annual Meeting of the British Association will commence on Wednesday, September 9th, 1885 at Aberdeen. The President-Elect is the Right Hon. Sir Lyon Playfair, K.C.B., M.P., Ph.D., LL.D., F.R.S., who will take the place of Lord Rayleigh. The Vice-Presidents are His Grace the Duke of Richmond and Gordon, K.G., Chancellor of the University of Aberdeen, the Right Hon. the Earl of Aberdeen, LL.D., Lord-Lieutenant of Aberdeenshire, the Right Hon. the Earl of Crawford and Balcarres, F.R.S., James Matthews, Lord Provost of the City of Aberdeen, Prof. Sir William Thomson, F.R.S., Alexander Bain, M.A., LL.D., Rector of the University of Aberdeen, the Very Rev. Principal Pirie, D.D., Vice-Chancellor of the University of Aberdeen, Prof. W. H. Flower, F.R.S., Pres.Z.S., Director of the Natural History Museum. General Treasurer: Prof. A. W. Williamson, F.R.S., University College, London, W.C. General Secretaries: Capt. Douglas Galton, C.B., F.R.S., A. G. Vernon Harcourt, F.R.S. Secretary: Prof. T. G. Bonney, F.R.S. Local Secretaries for the Meeting at Aberdeen: J. W. Crombie, M.A., Augus Fraser, M.A., M.D., Prof. G. Pirie, M.A. Local Treasurers for the Meeting at Aberdeen: John Findlater, Robert The Officers for Section D, Biology, are-President: Prof. W. C. McIntosh, F.R.S. Vice-Presidents: Prof. I. Bayley Balfour, F.R.S., Prof. J. S. Burdon Sanderson, F.R.S. Secretaries: W. Heape, J. Duncan Matthews, F.R.S.E., Howard Saunders, F.L.S., F.Z.S. (Recorder), H. Marshall Ward, M.A.

The Hume Collection in the British Museum.—The fine collection of Natural History specimens so generously presented to the British Museum by Mr. Allan Hume, C.B., has arrived from India, and has been deposited in the Natural History Museum at South Kensington. It is by far the largest private collection yet seen in any country, and illustrates in the fullest possible manner the avifauna of the British Asian Empire, commencing with Baluchistan on the west, and comprising the whole of the Indian peninsula and Ceylon, the Burmese Countries and Tenasserim, extending down the Malayan peninsula to Singapore. The collection comprises about 63,000 bird-skins in excellent condition, and all labelled with particulars of locality, date, &c., 18,500 eggs, and about 500 nests. In addition to these there are some 400 skins of mammals, including several undescribed species, and many of great interest from their rarity or local distribution. Great credit is due to Mr. R. B. Sharpe for the energy which he has displayed in proceeding to India during the hot season, and the expedition with which he packed and sent home this enormous collection, thus saving it from exposure to another rainy season at Simla, which in all probability would have destroyed a great number of skins. The Trustees of the British Museum may well be congratulated upon the acquisition of so

important a collection, which, when unpacked and properly arranged and catalogued, will prove the most valuable addition which has yet been made to the galleries of the Zoological Department.

MAMMALIA.

Period of activity of the Noctule and Pipistrelle.—Referring to the statement in the second edition of Bell's 'British Quadrupeds,' p. 19, that "the 18th of September is the latest date we have on record of its appearance," I may mention that I have frequently observed the Great Bat, Scotophilus noctula, to continue in activity up to a considerably later date. In 1879, particularly, I noticed this species on the wing on many evenings in October, and observed two or three examples hawking up and down in an exact line over the village street of Bodicote during a cold foggy week ending on the 13th of that month, on the evening of which day one of them was shot for me by a farmer. On the 16th we had a white frost, and it was very cold, nevertheless the Noctules continued on the wing, and a second example was shot and sent to me on the 28th October. This species becomes very fat previous to retiring for its winter sleep; the specimen shot on the 13th had a thick layer of yellow fat under the skin and weighed one ounce and a quarter, a great increase of weight as compared with two examples shot on the 25th July in the same year, sent to me from Nottinghamshire by Mr. C. M. Prior, which each weighed slightly under an ounce. It should, however, be stated that the Bodicote example was a male, and measured 14.6 inches in extent of wings, while the Nottinghamshire specimens were both females, measuring only 14.5 and 14.0 inches respectively. It is, I think, not very unusual to see the Pipistrelle on the wing in the daytime in winter, when the thermometer rises above 50° F. Under such conditions I have seen it about mid-day on January 2nd .- OLIVER V. APLIN (Great Bourton, Oxon).

BIRDS.

Discovery of the Eggs of the Knot, Tringa canutus. — Dr. Hart Merriam, writing on this subject in the July number of 'The Auk,' says:—"Lieut. A. W. Greely, U.S.A. Commander of the Late Expedition to Lady Franklin Sound, succeeded in obtaining the long sought-for egg of this species, and has had the extreme kindness to ask me to publish the first account of it. Lieut. Greely writes:—'The specimen of bird and egg were obtained in the vicinity of Fort Conger, lat. 81° 44′ N. The egg was 1·10 in. [28 mm.] in the longer axis, and 1 in. [25·40 mm.] in the shorter. Colour light pea-green, closely spotted with brown in small specks about the size of a pin's head." Dr Hart Merriam is somewhat in error in supposing that the egg which he describes is the first which has been obtained; for during Parry's first voyage in 1820, Sabine found the Knot breeding in abundance on Melville Island; and during Parry's second voyage, in 1823,

Capt. Lyons found it breeding near Quilliam Creek, Melville Peninsula. He described it as laying four eggs in a tuft of withered grass, without any nest. Sir John Richardson reported the Knot as breeding in Hudson's Bay, and down to the 55th parallel (Faun. Bor. Amer. Birds, p. 387); and, according to Mr. Hutchins, the egg is of a dun-colour, fully marked with reddish spots. It will be recollected that Major H. W. Feilden, naturalist on board H.M.S. 'Alert' in the English Arctic Expedition of 1875–76, brought home the young in down of this bird from Knot Harbour, Grinnell Land, lat. 82° 33' N- They were found on July 30th, 1876, a previous careful search for the eggs having proved unsucessful. — J. E. Harting.

The Siskin in Co. Sligo in Summer.—While riding to Ballina, on July 1st, I observed a male Siskin at Moyfort, flitting about the tops of the long grass on the side of the road, and afterwards in an adjoining field, where it pursued the same career, evidently searching for insects of some kind. From the fact of its hunting for insects, I infer that it must have had a nest with young somewhere near, probably in the extensive larch plantations of Belleek Manor, just across the river. This is the first instance I have known of the occurrence in summer of the Siskin in the West of Ireland; moreover, in winter it is of very rare occurrence in this Many years ago, however, I met with a large flock during winter feeding on the alders in the glen at Raffern, Co. Cork; and, shooting some specimens for identification, a female bird was slightly wounded in the wing. On bringing her home I put her into a cage, where she became so tame that she paired with a canary the following spring; and built a nest, but unfortunately died in laying her first egg. - Robert Warren (Moy View, Ballina).

[In Ireland the Siskin occurs chiefly as a winter visitor, but we learn from Mr. A. G. More that the nest has been found in the counties of Antrim, Wicklow, and Waterford.—Ed.]

The Note of the Great Black Woodpecker.—With reference to the note of a supposed Great Black Woodpecker, described by Mr. E. Cambridge Phillips (antea, p. 305, 306), it may perhaps be useful to remark that the cry of this bird is described in Meyer's 'British Birds' (8vo ed. vol. iii. p. 227), and in Dresser's 'Birds of Europe' (vol. v. pp. 6 and 8), with sufficient precision to afford a basis for comparison with that heard by Mr. Phillips.—J. H. Gurney (Northrepps Hall, Norwich).

White Wood Pigeons.—I have lately received a handsome variety of the Wood Pigeon. It has the flight-feathers and tail of the normal colour, except the three central feathers in the latter, which are pure white. On the breast are a few feathers, very faint, of the normal colour; otherwise the bird is quite white. It was shot in Fifeshire last December, and

I believe has not yet been recorded. Besides having another exactly like it, I have a third in my collection, a perfect albino.—John Marshall (Belmont, Taunton).

[Another instance of a pure white Wood Pigeon is reported in 'The Field' of 1st August last.—ED,]

Ring Ouzel feeding on Cherries.—It may interest some of your readers to hear of the capture of a Ring Ouzel alive in a cultivated part of Lincolnshire, nineteen miles south of Lincoln. It was taken by one of our gardeners in a cherry-net, feeding, I suppose, on the cherries. It is, I believe, a female of this year; but being put into my aviary with Blackbirds, &c., it died, and was thrown away unfortunately, as I intended to have preserved its skin, and to have examined it. Is not this bird of rare occurrence in this county?—T. G. Reeve (Leadenham House, Grantham).

[Mr. Cordeaux, in his 'Birds of the Humber District,' tells us that the Ring Ouzel is occasionally met with in Lincolnshire during the spring and autumn, and that during the latter season he has observed it in company with Fieldfares. It evidently does not breed in his county, or he would have remarked it; and its appearance in gardens and cultivated grounds is, we should imagine, unusual. We have seldom observed it except in the wildest parts of the country, generally on hilly ground amongst heath and juniper, and far removed from all human habitations.—Ep.]

Variety of the Brambling.— Three black-chinned Bramblings were killed at Yarmouth last autumn. I never saw but one example of this variety obtained in Norfolk before, and this was picked out from among some poisoned birds at Florden, before that method of destruction was made illegal. The black patch on the chin measured about one-fourth of an inch, but in one of my Yarmouth examples it is over half an inch. In Herr Gätke's collection is a very fine specimen, obtained in the little island of Heligoland, in which the black measures half an inch. This variation in the colour of the chin, I believe, has never been noticed in the hen bird. It is well represented in a figure of this species given in Rowley's 'Ornithological Miscellany' (vol. i. p. 90).—J. H. Gurney, jun. (Northrepps, Norwieh).

Breeding of the Lesser Black-backed Gull on the Yorkshire Coast.—Referring to the correspondence which has already appeared on this subject, I wrote last June to one of the "climmers" on the Yorkshire coast, asking him to send me "a clutch" of Kittiwake's eggs, and with them he sent two eggs of the Lesser Black-backed Gull, which he thought I should like as they are so seldom to be found. He assures me they are genuine, and that he distinctly saw the old bird sitting on them before he took them. The nest was on the cliffs between Filey and Scarborough, where the eggs were also taken which I recorded in 'The Zoologist' for

November, 1884. The man who sent me this clutch of eggs is one of the climbers on the Flamborough cliffs, and is well acquainted with the various birds occurring along the coast, and has no connection with the man from Filey who had gathered the eggs I saw in 1884. I think myself there is no doubt the eggs are authentic, but it is a great pity the idea did not occur to the sender of shooting the old bird off them, though it was hardly likely he would consider the identification of the bird of so much importance.—
Thomas Carter (Burton House, Masham).

[Perhaps the sender remembered what our correspondent appears to have forgotten—namely, the existence of a Wild Birds Protection Act, in force between the 1st March and the 1st August.—Ep.]

Curious death of a Partridge.—My brother, T. H. Becher, brought home the head, which I now forward, of a young Partridge which he found dead. It seems to me that the stiff clay at the end of the bill has most effectually sealed up the beak, and eventually caused death. When found there was more clay upon it, but having been brought home in the pocket some of it got accidentally rubbed off. I send the head, as I think a personal inspection may be interesting.—W. Becher (Hill House, Southwell, Notts).

[The head in question certainly presents a singular appearance, both mandibles being enveloped in clay. This must have been of a very adhesive nature, accumulating as the bird picked up its food until, in an interval of repose, it became dried and hardened by the sun or wind, eventually preventing the beak from opening. It is curious that the bird did not get rid of it by wiping the beak at once after feeding, a process which most birds are very careful to perform.—ED.]

Breeding of Charadrius hiaticula.—Mr. Stevenson, writing in 1870 ('Birds of Norfolk,' vol. ii., p. 85), informs us that—"At the present time, in the long range of coast between Yarmouth and Salthouse, I know of no regular nesting-place of this Plover, although a few scattered pairs may possibly be met with." I was therefore very much pleased this spring, 1885, to find no less than three pairs breeding on the South Denes. Yarmouth, and I am glad to say one pair at least hatched out their young safely, as I saw the downy nestlings crouching amongst the gravel on June 29th. It is wonderful with what persistency birds return to old breeding-haunts, and under what difficulties they incubate. These South Denes of Yarmouth are the constant resort of hundreds of pedestrians. Fishermen are continually employed spreading out and drying their nets thereon, and yet a pair of Ring Plovers made their nest and hatched out within fifty yards of the carriage-drive. On June 28th (Sunday) several "Arrys" with a dog, were employed in pelting this pair of birds with stones as they flew round and round, or, settling on the ground, endeavoured to lead the terrier from their young; in this they were successful, as the next day I found the young all right. That the old birds should have been permitted to live through the spring in such a locality is owing to the close season being respected.—H. W. FEILDEN.

Breeding of the Red-throated Diver in Ireland. — Writing of this species in the new edition of 'Yarrell's British Birds' (vol. iv., p. 113), Mr. Howard Saunders remarks: -" To the coasts of Ireland this Diver is a regular visitant from autumn to spring, and it appears possible that a few pairs breed on some of the numerous lakes of the remote districts of Donegal." Since this observation was published, in September, 1884, confirmatory evidence on the subject has come to hand. Mr. R. Lloyd Patterson, of Holywood, Co. Down, writes word that on May 26th last a nest with two eggs of the Red-throated Diver was found on a small lake near Dungloe, in North-western Donegal. The discovery was made by the keeper of Mr. John Hudman, who forwarded the eggs to Mr. Patterson, by whom they were compared with the coloured plates in Hewitson's and Seebohm's works, and with authenticated eggs of the Red-throated Diver in the Belfast Museum. There is no doubt, therefore, that the eggs taken at Dungloe have been correctly identified, and an interesting fact has been established which previously rested merely on surmise.—J. E. HARTING.

Ornithological Notes from Oxfordshire.—On April 11th I saw a pair of Grey Wagtails near a spring in a railway-cutting at Adderbury; I only know of one instance of this species breeding in North Oxfordshire. Both the House Martin and Swift arrived earlier than I have ever known them to do before, the former on the 17th and the latter on the 27th April. The water at Clattercutt Reservoir, which was let down last July, was very low all the winter and spring, and over a considerable extent of mud left exposed a luxuriant marsh vegetation has come up. Among this a Whimbrel was feeding on May 9th and 10th; it was fairly tame, and I got a good view of it with the glasses. It seems probable that Goldfinches are increasing slightly, as I have seen three pairs this season (one of which was feeding "branchers" on June 18th), whereas for several years past I have rarely seen a bird of this kind all the summer. A Common Tern was caught by a dog on the canal near Banbury early in June. On the 20th I waded out to a very pretty Coot's nest, moored in water about two and a half feet deep; the upper portion of the nest was formed almost exclusively of the fresh flowering plants of Nasturtium amphibium, together with a few of Ranunculus sceleratus. Mr. Bartlett informs me that about the end of May he saw two pairs of the Cirl Bunting near South Newington. knows the bird, and particularly noticed the black throats of the males. About the end of December, 1870, eight of these birds were shot from a small party feeding on hay seeds close to Banbury; I saw two of them, a

male and female, last year in a collection at Warwick. A Quail frequented a clover-field near this house in May; I heard it calling on several evenings, but do not know that any nest was found when the field was mown. From its curious note, this bird takes in Oxfordshire the name of "Twit-me-dick," but perhaps "Twit-middick" would express the sound better. The fact of their having a local name shows that Quails must at one time have been tolerably common in this county, but they are now very rarely met with. I have seen no eggs taken in the north of the county within the last ten years, and Mr, Wyatt has not stuffed a specimen for some years past. A Black-headed Gull in immature dress was shot in the Cherwell meadows, near King's Sutton, on July 11th. On the 19th a Green Sandpiper had put in an appearance at the Reservoir; this is the earliest date in autumn at which I have met with it.—Oliver V. Aplin (Great Bourton, Oxon).

Varieties of the Carrion Crow.—Mr. W. K. Petherick, of Taunton, has recently shown me a curious variety of the Crow, shot by Gen. Kepple Taylor, of Staplegrove. It may be described as of a rich umber-brown: the back of the head and nape-feathers are of a somewhat paler tint, inclining to ashy brown; the breast is almost entirely ashy brown, the feathers getting richer in colour towards the vent. The wings are a pale brown, the flights being a rich umber-brown. The beak and legs approach the normal colour, but are slightly brown. Altogether the bird is of a very warm umber-brown colour. A white specimen of the Carrion Crow was shot the last week in June at Hawkridge, near Dulverton, by Mr. James Bawden, of East Hollowcombe. This also has been preserved by Mr. W. K. Petherick, and Mr. Bawden has kindly allowed me to add it to my collection. —John Marshall (Belmont, Taunton).

Little Owl in Yorkshire.—In November of last year (1884) one of these pretty little Owls was taken on board a fishing boat just off Scarborough, and brought alive to a birdstuffer in the town, Mr. A. Roberts, who preserved it for my collection. About six weeks later another of these birds was taken in a trap at Leamore, about four miles from Scarborough, inland. This also was brought alive to Mr. Roberts. Probably both birds came over together from the Continent, and one was fortunate enough to escape capture for a few weeks longer than the other.—J. WHITAKER (Rainworth Lodge, Notts).

Variety of the Magpie.—I have recently examined a curious variety of the Magpie. It is a young bird just out of the nest, fully feathered, but with the tail-quills only four or five inches long. The head, neck, and upper breast are of a smoky dun-colour; the back wings and tail silvergrey, the colour being particularly silvery on the tertials; primaries marked with white, as usual; the white of the scapulars strongly tinged with buff, and that of the under parts with the same tint in a less degree. Bill and

legs normal or perhaps a shade paler than in the adult, which may be the case with young birds generally. It was one of a brood hatched at Shotswell, Warwickshire, and was caught, soon after leaving the nest, on or about Midsummer-day. Varieties of the Magpie seem to be decidedly rare. I have only seen three others, besides this one, viz., (1) the normal black everywhere replaced by cinnamon-brown; (2) somewhat similar, but with the brown much paler; and (3) a white bird sold by auction at Stevens's Sale Rooms in March last.—OLIVER V. APLIN (Great Bourton, Oxon).

Hybrid Wildfowl. - Calling on my correspondent, Mr. Verrall, of Lewes, on July 31st, he showed me three fine well-feathered hybrids, bred this summer from a drake Pintail and female Wild Duck. In shape and colour they bore a strong resemblance to the Pintail, which was of course in "eclipse"; but the warmth of tint about the breast suggested the Mallard cross. Other fine hybrids were there also, bred from a female Canada Goose and a Chinese gander; these in plumage bore a close resemblance to the Canada Goose, but their cravats were broader than hers and less pure in tint. In their legs and feet the mixed blood showed itself; these parts should probably be termed flesh-coloured. Upon the same water we observed a charming group of three Tufted Ducklings in dark brown down. The trio were resting indolently on the broad leaves of a water-lily, at no great distance from the old duck. A pair of Pochards were there also, but had lost their young. Mr. Verrall, whose experience in hybridising is very remarkable, reared a number of hybrids on these small waters, between the Pochard and Tufted Duck, some years ago .-H. A. MACPHERSON (Carlisle).

Late Stay in Spring of the Shore Lark.—In April last I received, as an unknown bird, a male Shore Lark (Otocorys alpestris) in the flesh. It was shot, on the 22nd of the month, on the Sussex coast, east of Hastings. Its stomach contained the remains of numerous small white worms and small green coleopterous larva, also a quantity of grit. — OLIVER V. APLIN (Gt. Bourton, Oxon).

Redstart and Great Titmouse using the same Nest. — In May last, Mr. John Gurney was kind enough to show me one of his nesting-boxes at Sprowston Hall, near Norwich, which at that time contained four eggs of the Great Tit and two of the Redstart, on which the Tit was then sitting. Both the Redstart and the Great Tit were seen to visit the nest, but after laying two eggs the Redstart appears to have vacated in favour of the Tit, which in due course hatched and reared the mixed brood, the young Redstarts leaving the nesting-box one day before the Tits. There were also two pure white eggs in the nest, but by what bird they were laid it is now impossible to say with certainty; unfortunately they were taken, instead of being allowed to hatch off.—T. Southwell (Norwich).

Hybrid Finches.—I have lately had the pleasure of examining two hybrids, bred in the aviary of Mr. J. H. Verrall, of Lewes, between a male Goldfinch and female Linnet. I had not seen this cross before in nestling plumage; the upper parts, wings, and tail closely resembled the young grey-pated Goldfinch, though the golden wing-bars were of course much narrower and less vivid than in Carduelis elegans. The head and breast were of a Linnet-brown, and the shape was more that of the Linnet than Goldfinch. These nestlings were reared in an outdoor aviary (in which Mr. Verrall has bred hybrids between the Twite and Greenfinch, Linnet and Greenfinch, &c.). The old Linnet has nested three times this summer.—H. A. Macpherson (Carlisle).

BATRACHIA.

The distribution of British Batrachians.—I can add a few links to the chain of counties mentioned by Mr. Boulenger (p. 267) as inhabited by the Palmate Newt—namely, Berkshire, Hampshire, and Surrey; it is also reported from Yorkshire, Norfolk, and Ireland. The Berkshire localities I forget; those in Surrey include Tooting and Woking ('Science Gossip,'1866); while in Hants it must be generally distributed, as the late Prof. Bell found it at Selborne, and I have myself seen it on the sand at Bournemouth, on the Dorsetshire border, and here, in the south-east of the county, where it occurs with both common species in clay-pits, but most abundantly, with a very small proportion of punctatus, in a warm pond in a chalk-pit. The absence of the Common Smooth Newt from Bournemouth seems remarkable. Has it been met with on other dry soils? Are the Toad and the Rough Newt (both rough-skinned) alike in preferring such localities? I saw in 'The Field' that the Zoological Society had received a Smooth Snake from Essex, last year, I think. Is not that a new locality?—J. E. Kelsall (Fareham).

FISHES.

Basking Shark in Mount's Bay.—A specimen of Pennant's Basking Shark (the Rashleigh Shark and Broad-headed Gazer of Couch) was taken in Mount's Bay, in a set-net, within twelve fathoms of the base of the cliff between Newlyn and Mousehole, on July 26th, measuring ten feet one inch in length. I inspected it and had it photographed the following day, but the extreme heat of the weather prevented my making any attempt to preserve it. I have, however, nothing to add to my description of a smaller specimen of the same fish given in 'The Zoologist' for 1870, p. 2253. Mr. Clogg, of Looe, writes me that a precisely similar fish was taken at Polperro in the first week in June last, and Mr. Gatcombe, of Stonehouse, informs me that another was taken at Plymouth some years ago. He sends drawings of its peculiar head, which leave no doubt on the subject. I do not find that this fish has any specially distinctive name,

and I accordingly suggest for it Selachus Pennantii. I do not understand that its habits are at all those of the true Basking Shark. I have never heard that it has been seen on the surface of the water; and it differs from the Basking Shark proper, Selachus maximus, as much as it is possible for one Shark to differ from another.—Thomas Cornish (Penzance).

[On turning to the 8th vol. of Dr. Günther's 'Catalogue of Fishes,' we find (p. 394) that the author regards both the fish described by Pennant and that described by Couch as identical with the Common Basking Shark, Selache maxima. The weight of this large and gelatinous fish would cause it to be much distorted when cast ashore, and one might be easily led to suppose that a specimen thus misshapen was something different from the common species. Having regard to the synonymy given by Dr. Günther, it seems to us unnecessary to propose a new specific name.—Ed.]

Food of the Basking Shark and Herring.—Couch, no mean authority, says "the food of this fish is not known." Dr. Day has lately expressed an opinion on the subject (antea, p. 235). After examining the stomach of a large Basking Shark stranded on a rocky ledge off Shanklin, in February, 1875, I remarked (Zool. 1875, p. 4415) that in the stomach "nothing but a glutinous substance was found, which was submitted to a microscopic inspection. The analyst who examined it failed to ascertain of what it was composed; sea-weed was suggested, and he seemed to think it might be that. The matter contained in the sporules of the genus Fucus is of a glutinous nature, somewhat resembling the substance in question." When residing on the east coast of Scotland I endeavoured to find out on what the Herring feeds, opening and examining several recently netted, but nothing but a little pulpy glutinous matter, in a semi-liquid state, -possibly digested spawn, -was found in the cloacum. The smallness of the intestine -less than one-fifth of an inch in diameter-seems to offer an effectual bar to any but the merest fry being swallowed. The recently published remarks, however, of Mr. Matthias Dunn (antea, p. 236) suggest that the pulpy glutinous matter which I found in the Herrings which I examined consisted not of digested spawn, as I supposed, but of the spores of seaweeds.—HENRY HADFIELD (High Cliff, Ventnor).

Thrasher or Fox Shark at Rye.—On July 14th a Thrasher or Fox Shark, Squalus vulpes, was caught in some mackerel-nets at Rye Bay, Sussex, and was brought into Hastings for exhibition. It measured eleven feet in length. The colour of the body and fins was dark dull blue, and the belly white and mottled. Its weight was 250 fbs.—F. V. Theobald (Kingston).

Fox Sharks on the Coast of Devon.—On the 6th of August two Thrashers or Fox Sharks, Squalus vulpes, were caught in Torbay by a Paignton fisherman named Lewis, one of which measured nine and the other

five feet in length. Sharks of different kinds have been rather plentiful on the coasts of Devon and Cornwall during the prevailing hot weather.—
J. GATCOMBE (Durnford Street, Stonehouse, Devon).

Torpedo marmorata at Mevagissey.—On the 25th June last a female specimen of Torpedo marmorata was caught in a trawl-net in Mevagissey Bay. It measured about eighteen inches in length by eleven inches in width, and weighed about six pounds. The general colour of the back was light brown, with a shade of yellow in it, and mottled with white spots over the entire surface, except that directly over the electrical organs the spots coalesced so as to form an extensive white patch. The spiracles behind the eyes were large and oblong, with seven or eight protuberances attached along the inner edge. A strange circumstance in connection with this creature is its being affected by parasites, some of which, very much like leeches, were attached to its back, and presumably must be proof against an electrical shock.—Matthias Dunn (Mevagissey).

Habits of the Lesser Weever.— The Lesser Weever, Trachinus vipera, has a habit of taking shelter at night under the sand of the seabottom. I had this information from two friends who went to Portmelon beach here to dig Launces out of the sand with a shovel, one using the implement, the other holding a light and gripping hold of the fish on their being turned up. The light-holder made a rush at what he thought was a large Launce, but found to his cost he had got hold of a "Viper Weever," for the spines of the creature instantly entered his hand. The usual length of this fish is four or five inches, the colour yellowish brown, and the body relatively deeper than that of the Greater Weever, Trachinus draco.— MATTHIAS DUNN (Mevagissey, Cornwall).

MOLLUSCA.

Pisidium roseum at Fulham.—It may interest some of your readers to know that Pisidium roseum, Schlotz., occurs in great profusion at Fulham, Middlesex. It is associated with Sphærium corneum, Pisidium pusillum, Bythinia tentaculata, Valvata piscinalis, V. cristata, Planorbis nitidus, P. albus, P. vortex, P. complanatus, P. corneus and var., P. contortus, Physa fontinalis, and Limnæa peregra.—Sydney C. Cockerell (Bedford Park).

CEPHALOPODA.

Octopus at Mevagissey, Cornwall.—About the end of June last a large Octopus vulgaris was landed here; the stretch of its arms covered five feet four inches, and the number of its sucking discs was about 1500, some of which were an inch in diameter.—Matthias Dunn (Mevagissey).

SCIENTIFIC SOCIETIES.

ENTOMOLOGICAL SOCIETY OF LONDON.

At a meeting of this Society, held 5th August, 1885, Mr. J. Jenner Weir, Vice-President, in the chair.

Mr. J. W. Dunning, at the invitation of the Vice-President, announced that the Society's application for a Royal Charter had been successful. He held in his hand the Charter which had been granted by Her Most Gracious Majesty, and begged leave to present it, and formally place it in the custody of the Society.

The document was then read by the Secretary.

The Vice-President congratulated the Fellows, as he might now call them, on the position which the Society had attained, and on the privileges which had been granted.

Mr. Dunning said that when, in 1883, it was decided to take action in the matter, he had invoked the assistance of a member, Mr. Frank Crisp, and left the conduct of the affair entirely in his hands. He thought the result which had been announced was a sufficient justification of the step. Now that the object had been obtained, Mr. Crisp had, with characteristic generosity, written to say that he had no charges whatever against the Society. He therefore moved that the hearty thanks of the Society be given to Mr. Crisp for his valuable and gratuitous services. This was seconded by Mr. Stainton, and carried unanimously. The Secretary was instructed to communicate the vote to Mr. Crisp, who was not present at the meeting.

Jonkherr May, while gladly acknowledging Mr. Crisp's kindness, thought that it was only Mr. Dunning's modesty which induced him to take this means of diverting attention from his own share in obtaining the Charter. It was to Mr. Dunning also that the Society was indebted, and he moved that the hearty thanks of the Society were due, and should be given to him. Mr. Meldola seconded the motion, and it was carried unanimously.

Mr. Dunning, in acknowledging the vote, said that when temporarily occupying the chair, some six years ago, he had said, "Incorporation by Royal Charter is not beyond our hopes." It was only a passing thought, and he had little expectation that the hope would so soon be realised. To himself, it was an unmixed pleasure to have been instrumental in obtaining that which alone was wanting to complete the fabric of the Society, and give it that status to which its history of fifty years afforded a claim, the justice of which has now received such graceful recognition.

NOTICES OF NEW BOOKS.

Catalogue of the Birds in the British Museum. Vol. X. The Passeriformes or Perching Birds. By R. Bowdler Sharpe. 8vo, pp. 682, with 12 coloured plates. London: printed by order of the Trustees. 1885.

The publication of this important Catalogue proceeds steadily at the rate of a volume a year, ten having appeared since its commencement in 1874. With the exception of Vol. V., which was prepared by Mr. Seebohm, and Vols. VIII. and IX. by Dr. Gadow, all have been written by Mr. Sharpe, who must be congratulated on the energy which has enabled him in the midst of other official duties to execute so large a share of the general work.

In Vol. X., now before us, 448 species are described, represented by no less than 4590 specimens in the National collection. This portion of the general collection has received important additions by the amalgamation of the valuable private collections of neotropical birds belonging to Messrs. Salvin and Godman, and Dr. Sclater, which, since the publication of Vol. X., have been presented to the Trustees of the British Museum, and which, so far as the present volume extends, have been incorporated in the Catalogue; while numerous valuable North American birds have been added through the co-operation of Professor Buird on behalf of the United States National Museum.

As regards the Old World species the British Museum collection would seem to be tolerably complete; and many of the migratory species are represented by long series of specimens satisfactorily illustrating their geographical distribution.

Mr. Sharpe tells us in his Introduction that in working out his descriptions of the changes of plumage which a great many species undergo, he has not relied solely on the series in the British Museum, but has examined numerous specimens in several private collections. The various changes of plumage which the Wagtails, for example, undergo, are extremely puzzling, even when a large series is available for examination; and looking at the nicely executed coloured figures of the heads

of Pied and Yellow Wagtails given on Plates IV.—VIII., it needs a nice discrimination to separate Motacilla lugens from M. ocularis, hodgsoni from personata, or borealis from cinereicapilla. Many authors separate generically the Yellow Wagtails from the Pied ones, bestowing upon the former the generic term Budytes: but Mr. Sharpe, we observe, calls them all Motacilla. At p. 457 he says:—"I have united the Field Wagtails (Budytes) with the Water Wagtails (Motacilla), as their separation does not appear to me to depend upon any structural character. A study of the whole of the Wagtails teaches us that although European forms might be divided under the above headings, there are certain intermediate species, such as M. flaviventris, which unite these two supposed genera."

Again, the generic differences between Motacilla and Anthus are so slight, that Mr. Sharpe would place them in the family Motacillidæ, instead of adopting, as Dr. Coues does, two subfamilies, Motacillinæ and Anthinæ, a subdivision which Mr. Sharpe thinks strictly applicable only to the American species. His "keys" to the genera and species are ingeniously constructed, and although here and there one may detect a slight inconsistency or slip of the pen, on the whole they must be said to furnish useful aids to identification, and obviously represent a considerable amount of labour, and the handling of an enormous number of specimens. If Mr. Sharpe's views are not always acceptable to ornithologists, they are at least deserving of attentive consideration as the outcome of the study of an unrivalled collection.

Comparative Anatomy and Physiology. By F. Jeffery Bell, M.A., Professor of Comparative Anatomy at King's College. Post 8vo, pp. 550, with 229 engravings. London: Cassell & Co. 1885.

In this useful volume, one of a series of Manuals for Students published by Messrs. Cassell & Co., we have a guide to Comparative Anatomy and Physiology written on somewhat new lines. The author points out that as there has been an evolution of organs as well as of animals, if we desire to understand the most complicated organs, we must first know the structure of such as are more simply constituted. With this object he has

written about organs rather than about groups of animals; but he has added an Index, in which the various parts of an animal are collected under its name; so that the student who desires to use the volume as a zoological text-book will have no difficulty in selecting the portions of the chapters which bear on a particular form or set of forms.

A noticeable feature in the book is that all important biological terms which precede the definitions given of them are printed in bolder (Clarendon) type. These, in point of fact, are the material words which would be certain to be underlined by the student, were he not by this device saved the trouble of doing so. Another commendable feature is that the author gives the names of his authorities for important statements, a practice which we should like to see more generally adopted, especially when such statements embody the latest results of biological research. It too often happens that the writers of text-books, for the sake of brevity, condense in a few lines an allusion to some recently ascertained fact, and by omitting a reference to the authority for the statement, disappoint the reader, who would like to satisfy himself on the point in greater detail.

The woodcuts in this volume, although of unequal merit, seem to have been selected judiciously, and sufficiently illustrate the author's remarks.

The Collected Scientific Papers of the late William Alexander Forbes, M.A. Edited by F. E. Beddard, M.A. With a Preface by P. L. Sclater, M.A., Ph.D., F.R.S. Royal 8vo, pp. 496, with 25 plates. London: R. H. Porter. 1885.

The late Mr. W. A. Forbes, as many of our readers will recollect, was for three years Prosector to the Zoological Society, during which period he brought before the scientific meetings many interesting and valuable communications, mainly derived from his studies of the animals that came under his examination at the Zoological Gardens. These were published at intervals in the Society's 'Proceedings.' In addition to these, he contributed several papers to 'The Ibis,' and 'The Entomologist's Monthly Magazine,' and an important Report on the Anatomy of the Petrels collected during the voyage of H.M.S. 'Challenger,' printed in the Scientific Reports of the Voyage,

Volume IV., Part XI., and occupying 64 quarto pages with seven plates.

When, to the grief of all who knew him, Forbes fell a victim to dysentery while travelling up the Niger in January, 1883, it was resolved, at a meeting of the Zoological Club (of which he was a member), to reprint his scientific papers in a memorial volume similar to that containing Garrod's Scientific Papers, which Forbes himself had edited. The volume thus agreed upon has been ably edited by Mr. F. E. Beddard, the present Prosector to the Zoological Society, and has been recently issued to subscribers. We understand that a few copies are available for sale to the public, and those of our readers who do not possess sets of the periodicals to which Forbes's papers were originally contributed will do well to obtain a copy of this valuable collection.

Amongst the more interesting and useful papers in the volume may be mentioned the Reports on the Collections of Birds made during the Voyage of H.M.S. 'Challenger,' "On the Anatomy of the African Elephant," "On the Shedding of the Horns of the American Prongbuck," "Contributions to the Anatomy of Passerine Birds," "On the Anatomy of the Koala," "On Garrod's Contributions to Bird-Anatomy and Classification," "On the Incubation of the Indian Python," "On the Anatomy of the Great Anteater," "On the Californian Sealion," and "On the Petrels collected during the Voyage of the 'Challenger,'" already referred to; while the out-door naturalist will fully appreciate the papers reprinted from 'The Ibis' "On the Nesting of the Spoonbill in Holland," "Eleven weeks in North-Eastern Brazil," and the author's "Last Journal," with which the volume closes. The book is admirably printed, and is illustrated with all the plates (25 in number) which accompanied the original memoirs.

Elementary Text-Book of Entomology. By W. F. Kirby. 8vo, pp. 240, with 87 Plates containing 650 figures. London: Sonnenschein & Co. 1885.

We are always glad to welcome new aids to Science, especially when such publications emanate from specialists, or from those who have the reputation of possessing a knowledge of the subjects

on which they write. But it is one thing to possess the necessary information and another to be able to impart it to others. The art of teaching is not given to every writer of books, and in this instance Mr. Kirby does not show that he possesses it. We will not say that his book does not contain a good deal of information of one sort or another, but, as it seems to us, it is not of a kind to satisfy the readers of an "Elementary Text-Book." It so happened that while we were turning over the pages of this volume we received from a friend in Yorkshire a packet containing a number of Bees (Bombus pratorum) in the pupa stage, looking, in their tough, coriaceous envelopes, like so many broad beans which had been planted and dug up again before sprouting. It naturally occurred to us to turn to the Order Hymenoptera, Family Apida, to see what information was afforded concerning the transformations of Bees, the point we specially wished to investigate being the mode in which the pupa-case is formed, since it differs altogether in appearance from the white silky film or cocoon which the larva spins round itself in the cell. We were also curious to discover how long a period is passed in this curious pupa stage; but to our surprise Mr. Kirby's pages afforded no information on the subject, the reader being merely informed that "as long accounts of the economy of Bees are to be found in almost every book on Natural History, we may perhaps be allowed to pass the subject over in the present work." This statement reads to us very oddly in an "Elementary Text-Book," where one naturally expects to find such instruction as we have indicated. A similar dearth of information respecting the Ephemeridæ, and the Phryganeida, to which we turned only to be disappointed, forced upon us the conviction that the title of the book is a misnomer, while the absence of an index is a serious drawback to a beginner who may be expected to be ignorant of classification, and who may not know where to find the species he is looking for if not in the index. A better title for the book would have been "Illustrations of Entomology," for the most striking feature about it is the number of plates at the end, which contain more than 650 figures, nicely printed, though not original. Unfortunately no details of structure are figured, nor do we find any representations of larvæ or pupæ, which again seems to us a mistake in a so-called "Elementary Text-Book."

It is evident that a great deal of labour has been bestowed on the preparation of the letter-press, but from the way in which the subject-matter is treated we can hardly think that it will prove of much utility to those for whom it purports to be designed.

The Irish Wolf-hound. By Captain G. A. Graham, of Rednock, Dursley. Printed for the Irish Wolf-hound Club. 8vo, pp. 47, with two photographs. Dursley: Whitmore & Son. 1885.

It has often been asserted that the old race of dog known as the Irish Wolf-hound is extinct, but the writer of the present essay, who has for years been interested in preserving and perpetuating it, confidently believes that there are strains now existing which may be traced back more or less clearly to the original breed. It also appears tolerably certain that our modern Deer-hound is descended from that noble animal, and gives a fair idea of his appearance, though inferior to him in size and strength.

A Club has recently been organised, having for its object "to promote the more complete recovery of the Irish Wolfhound, and to firmly establish the race by endeavouring to make the qualities and type of the breed better known." With this object in view Captain Graham, the Honorary Secretary and Treasurer of the Club, has, in the Essay now before us, described the points and measurements of a typical dog of this breed, and has given some historical notices of it collected from a variety of sources. There can be no doubt that, having once fixed upon a type or standard to breed up to, based upon an accurate knowledge of the characteristic points of the old Wolfhound, with energy and perseverance the race may be entirely recovered, an event which we feel certain will meet with the approval of all good sportsmen and naturalists. Those of our readers who may be disposed to aid the object in view by becoming members of the Club should communicate direct with the Hon. Sec., whose address is given above.

